# 2021 Exploration Plan of Operations On USFS Lands, Prince of Wales Island, Alaska



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### 1.0 INTRODUCTION

## 1.1 Project Overview

The Niblack Project is an advanced exploration project located along the shores of Niblack Anchorage on southern Prince of Wales Island (Figure 1). In the recent past, exploration focused on patented mining claims (private property) at the head of Niblack Anchorage where drilling has identified a resource of 9 million tonnes of copper, gold, zinc, and silver mineralization. The prospective geologic volcanic rocks that host the resource on patented land are interpreted by Niblack Project LLC (Niblack) geologists to extend east, onto USFS lands, as a narrow belt along the southern shores of Niblack Anchorage as shown by the yellow unit in Figure 2. It is this projected geologic belt that is the focus of the exploration activities described in this Plan of Operations (Plan). Niblack controls the mineral rights to these USFS lands through a group of 298 Federal mining claims as shown on Figure 3.

This Plan describes a field exploration program consisting of helicopter-supported work including a ground-based geophysical survey and soil-sample-based geochemical prospecting in an area encompassing approximately 948 acres coincident with the projected belt of prospective geology. All this field work will occur on Federal mining claims owned by Niblack. The program will be executed during the summer months of 2021. These activities are minimally invasive. Understory brush clearing may be required in certain areas to enable hand transport of geophysical equipment (portable generator, wires and geophysical transmitter/receiver). Some hand (including chain saws) clearing of brush and small trees may also be required to construct helicopter landing pads for egress and ingress of equipment and personnel. Secondary containment will be used for generator and chainsaw fuel and oil; absorbent pads will be kept on hand. All of this is described in more detail below.

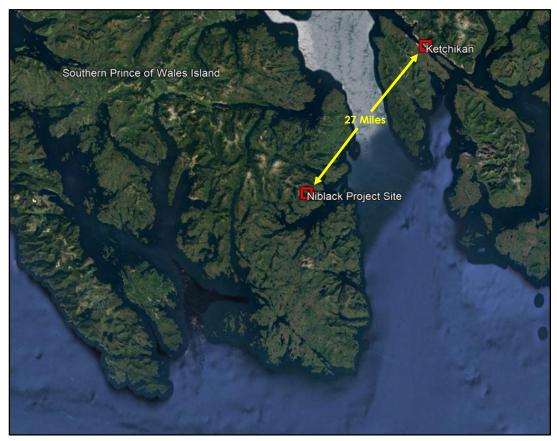


Figure 1. Niblack Project Location Map

### 2.0 NATURAL ENVIRONMENT

The lands included in this Plan are managed by the USFS. The area is undeveloped and mostly covered by needleleaf forest. The topography consists of moderate to steep slopes with some relatively low-lying areas adjacent to the coastline and in stream valleys. Elevations range from sea level to approximately 1,000 feet above mean sea level (amsl).

The needleleaf forest has an overstory of western hemlock (*Tsuga heterophylla*), Sitka spruce (*Picea sitchensis*) and western red cedar (*Thuja plicata*). The understory is dominate by red huckleberry (*Vaccinium parvifolium*), bunchberry (*Cornus canadensis*), skunk cabbage (*Lysichiton americanus*), sword fern (*Polystichum munitum*), foamflower (*Tiarella trifoliata*), fewflower sedge (*Carex pauciflora*) and deer fern (*Blechnum spicant*). Limited portions of the exploration area consist of open muskeg, particularly to the east.

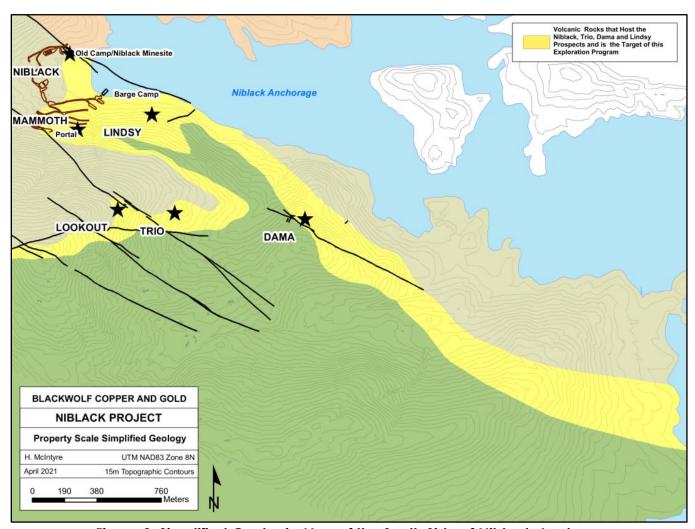


Figure 2. Simplified Geologic Map of the South Side of Niblack Anchorage

Based on limited work on the patented land adjacent to the exploration area covered by this Plan, soils likely include both hydric and non-hydric varieties. Hydric soils are indicated by histosols, histic epipedons, and sulfidic odor. Non-hydric soils include an organic horizon at the ground surface overlaying mineral soils.

Large mammals that inhabit the area include Sitka Black Tail Deer (*Odocoileus hemionus sitkensis*), Archipelago Wolves (*Canis Lupis ligonis*) and Black Bear (*Ursus americanos*).

The project area receives about 150 inches of rain per year. While lower elevations might remain snow free in winter with precipitation continuing to fall as rain, the thermocline is fairly steep, and several feet of snow accumulates above 500 ft amsl during the winter.

No endangered or threatened species are known to nest in the area, but the area is frequented by Bald Eagles and likely provides spring nesting opportunities for migrating songbirds.

The area is crossed by three 1<sup>st</sup>-order streams that originate in the higher country south of the exploration area. One of those streams may be ephemeral, based on the USGS topographic map.

As described further in this document the proposed exploration activities are not anticipated to have any significant effects on the natural environment in the exploration area. Impacts to wildlife will be minimized by avoiding helicopter flight in close proximity to observed large mammals (deer, bear, wolf).

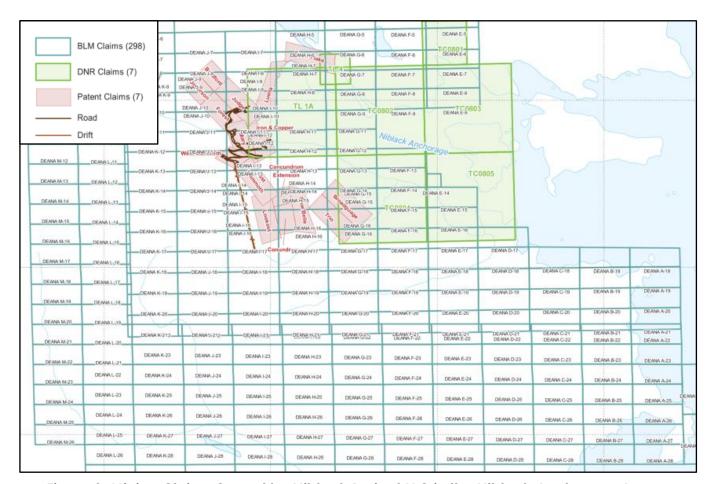


Figure 3. Mining Claims Owned by Niblack Project LLC in the Niblack Anchorage Area

Since access is by helicopter and the field work including geophysics and soil sampling is minimally invasive, except for helicopter landing platforms as discussed below, no material mitigation measures are required,. As mentioned below, clearing of brush and trees will be minimized to what is necessary for safe movement of personnel and equipment. Cutting live trees will be avoided whenever possible. Helicopter landing zones will include "opportunistic" sites that are naturally flat and free of trees to the greatest possible extent, with the exception of 5 landing zones that we describe below for which tree cutting and platform construction is likely required.

No historic or cultural sites are currently known to Niblack to occur in the exploration area, and none were identified during a "desktop" review of historical records for cultural sites in the area. This desktop study covered a swath of the coastline from Niblack Anchorage out to Moira Sound and over to Kendrick Bay as shown in Figure 4. Northern Land Use Research Alaska archaeologists completed a review of the Alaska Heritage Resources Survey (AHRS) Integrated Business Suite (IBS)1, the National Register of Historic Places (NRHP) database, and available cultural resources survey reports and consultation documents to identify cultural resources and historic properties within the Study Area and evaluate the applicability of previous survey coverage to the Study Area.

Notwithstanding the apparent lack of known cultural or historic sites in the current AHRS and NHRP records for the exploration area, as a matter of policy Niblack staff and its contractors will always be looking for any sign of cultural or historical resources in the field. If either is identified in the field in the course of the work described in this PoO, Niblack will immediately cease any work in the immediate area and contact the USFS and the State Office of History and Archaeology for further instructions.

### 3.0 EXPLORATION PROGRAM

Niblack is planning a 2021 exploration program consisting of: 1) a ground-based geophysical survey, and 2) soil sample-based geochemical prospecting. Depending on the results of this program Niblack may elect to perform exploratory drilling in the area as well. However, the drilling program will be approved through a future amendment to this PoO. All work will be helicopter-supported from a camp located on private property, owned by Niblack, and situated immediately west of the exploration area as illustrated on Figure 5.

# 3.1 Geophysical Survey

Niblack is planning to perform approximately 14 line-miles of ground-based geophysical survey. The survey method is called Induced Polarization (IP). The approximate locations for the survey lines are illustrated in Figure 6. The method involves placing a weak current in the ground from transmitter electrodes and then recording the delay and degradation of the current in a series of receiver electrodes. There are many methods of IP survey and Niblack may experiment initially to test method options. They vary mostly by the spacing between transmitter and receiver and the spatial distribution of the electrodes.

The survey is non-intrusive in the sense that minimal brush clearing is required to aid in moving the wires, electrodes and generator, and the electrodes are placed in shallow, hand-dug holes. Water and a small volume of salt might be added to the pit to improve soil conductivity for the transmitter electrodes. The current is generated by a portable gasoline generator.

Field geophysical data are recorded electronically and then subjected to computer manipulation in the office to produce a three-dimensional depiction of metallic mineral accumulations in the subsurface. These in-turn can be tested later with exploration drilling.

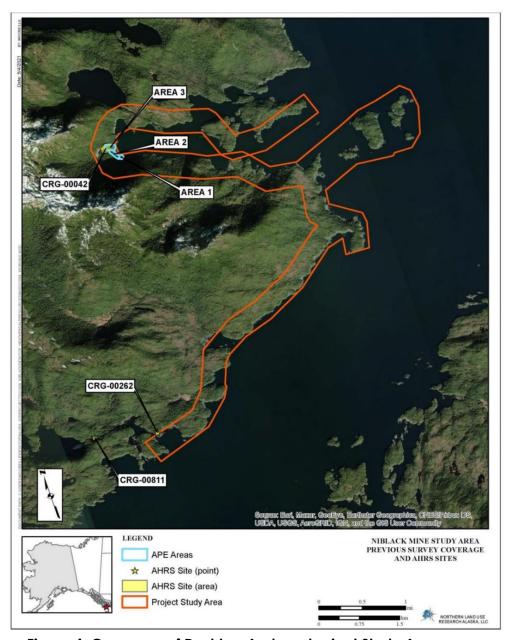


Figure 4. Coverage of Desktop Archaeological Study Area

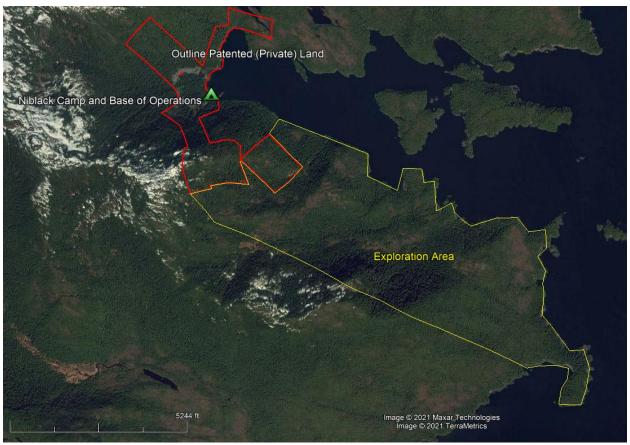


Figure 5. General Location Map of Exploration Area, Niblack-Owned Patented Lands and Niblack Base of Operations

# 3.2 Soil Sample Geochemical Prospecting

The geophysical survey lines will also serve as a grid for collecting shallow soil samples. Niblack anticipates collecting approximately 1,000 soil samples during the soil sampling program. The soils samples consist of approximately 1 lb. of mineral soil collected using a hand soil sampling auger or a hand shovel. Soil holes dug with a shovel are backfilled and the soil matt is flipped back to cover the disturbance. Nominal soil sample spacing is 50 ft. The soil samples are sent to an analytical lab and analyzed for metal and pathfinder elements. Those results are then interrogated using statistical and visual methods to identify areas with statistically significant concentrations of metal in the soil that might reflect correspondingly high metals in the bedrock below the soils. Soil geochemical data are also combined with the geophysical data to identify high priority targets with coincident geochemical and geophysical anomalies.

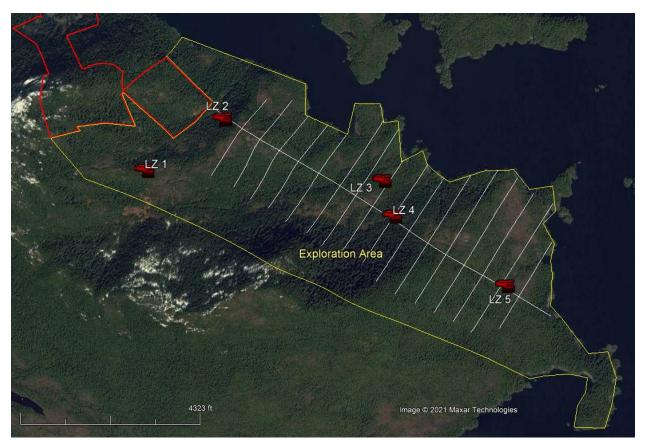


Figure 6. Exploration Area with Approximate Geophysical Survey and Soil Sample Lines and Proposed Helicopter Landing Zones that Require Tree Cutting and Pad Construction (LZ)

# 3.3 Exploration Program Logistics

As previously described, the exploration area (yellow outline Figure 5) is situated immediately east of Niblack's patented land (red outline Figure 5) and the patented land and existing camp will serve as the base of operations for their proposed exploration work on USFS lands.

Personnel will be based at the Niblack camp which consists of a barge moored to a floating dock adjacent to the patented-private land and authorized under a tideland lease from Alaska Department of Natural Resources (ADL # 109130), the camp and adjacent patented-private land will serve as the helicopter base of operations and all helicopter refueling and helicopter fuel storage will take place on this land.

It will be necessary to get personnel, geophysical equipment and soil samples into, and/or out of, the exploration area every day using the helicopter. Niblack will use "opportunistic" landing zones in natural open areas (muskeg and bare hilltops) that require little or no clearing for routine

landings. After using the helicopter to access the exploration area, personnel will move around the exploration area on foot; no motorized ground vehicles will be used for the program.

We also anticipate the need for 5 helicopter landing zones that will require some tree clearing and construction of wood platforms for the helicopter to land on. We are requesting approval to construct these helicopter landing zones with platforms as part of this Plan of Operations approval. These landing zones are identified on Figure 6 and the coordinates are listed in Table 1. These "constructed" pads will consist of wood timbers place on the ground to provide a level platform for nailing the wood decking. The platforms will be approximately 16 by 16 feet. Tree clearing will be kept to the minimum required to provide safe main- and tail-rotor clearance for a helicopter with a main-rotor diameter of up to 35 feet (i.e., A-Star AS350). Niblack anticipates leaving the constructed pads in-place for as long as it takes to evaluate the geochemical and geophysical data generated during the initial exploration program and consider the need for future access to perform follow-up exploration. Niblack will remove the wood platforms at each of the landing zones once it determines it has no future need for them.

Table 1. List of UTM Coordinates for Helicopter Landing Zones that Require Tree Cutting and Platform Construction – (Refer to Figure 6)

LZ ID	Easting (m)	Northing (m)	Datum
LZ 1	682834	6104449	UTM_NAD83_Zone8
LZ 2	683341	6104825	UTM_NAD83_Zone8
LZ 3	684454	6104440	UTM_NAD83_Zone8
LZ 4	684546	6104195	UTM_NAD83_Zone8
LZ 5	685365	6103726	UTM_NAD83_Zone8

The gasoline powered generator and chain saws (for helicopter pad construction) will require relatively small volumes of gasoline in the field. Gasoline will be transported in 5 gallon cans approved for gasoline. Chainsaw bar oil will be transported in 1 gallon cans. Secondary containment will be provided for both in the field in accordance with USFS policy. Absorbent pads will be kept on hand in case of any spills.

### References

Northern Land Use Research Alaska LLC, 2021, Desktop Cultural Resource Review of the Niblack Mine, Prince of Wales Island, Alaska, Consultant report for Niblack Project LLC, 9 pages.